

# New Product Analysis

By Aprilia Titisari  
2023



# TABLE OF CONTENTS

**01**

## **Project Overview and Business Goal**

**02**

## **New Product Analysis**

- Focused to answer questions:
1. How many customers were there for each approach?
  2. What does the spread of the revenue look like overall? And for each method?
  3. Was there any difference in revenue over time for each of the methods?
  4. Recommended sales method
  5. Nature of customers for each sales method

**03**

## **Key Findings and Recommendations**

Including the metric to monitor  
and current estimation

# Project Overview & Business Goal



Six weeks ago, we launched a new line of office stationery



Launching a new product line is expensive. We need to make sure we are using the best techniques to sell



There are three different sales strategies for this, targeted email and phone calls, as well as combining the two.



1. **Email:** Customers received an email when the product line was launched, and a further email three weeks later.
2. **Call:** Customers in this group were called by a member of the sales team on average 30 minutes per call.
3. **Email and call:** Customers in this group were first sent the product information email, then called a week later by the sales team. The average call duration was 10 minutes

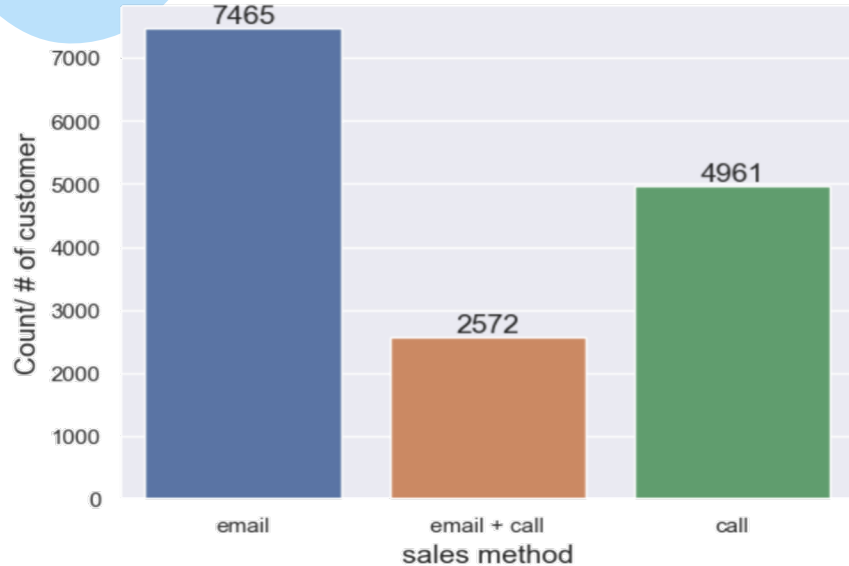


## GOALS

Promoting new products using the most effective sales method to gain higher revenue

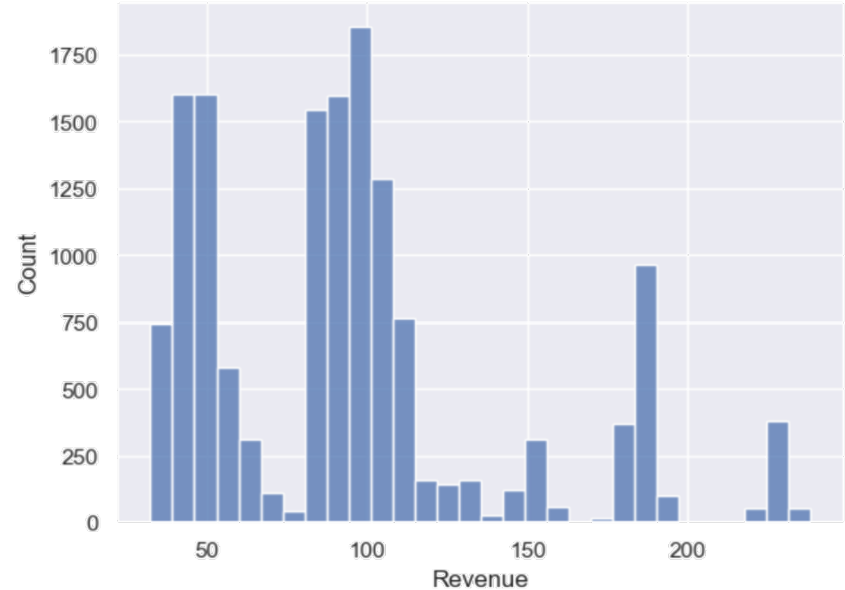
# New Product Analysis (Pg 1 of 5)

1. How many customers were there for Each Sales Method ?



Email was the most common strategy to approach customers.

2. What does the spread of the revenue look like?



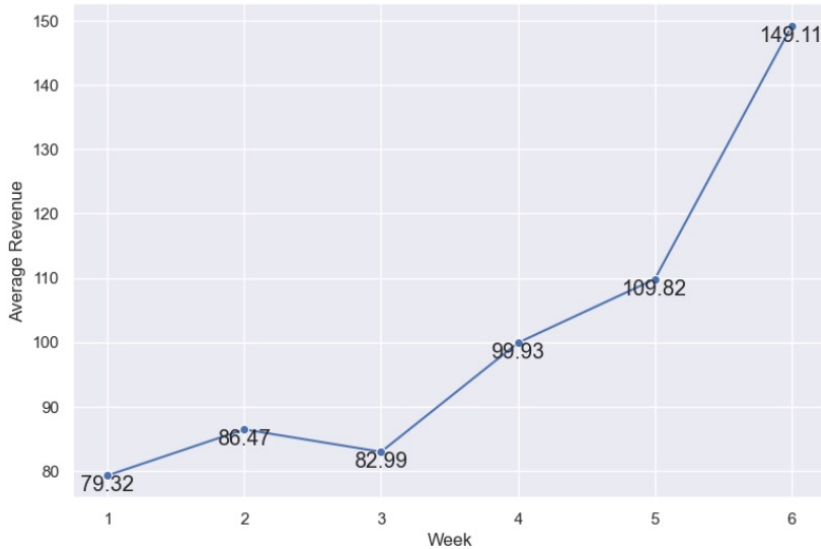
Parameter	25%	50%	75%	count	max	mean	min	std
Revenue Values	52.65	90.95	107.75	14998.0	238.32	95.58	32.54	47.96

Revenue distribution was concentrated under 150. There was a high gap of revenue range between minimum and maximum.

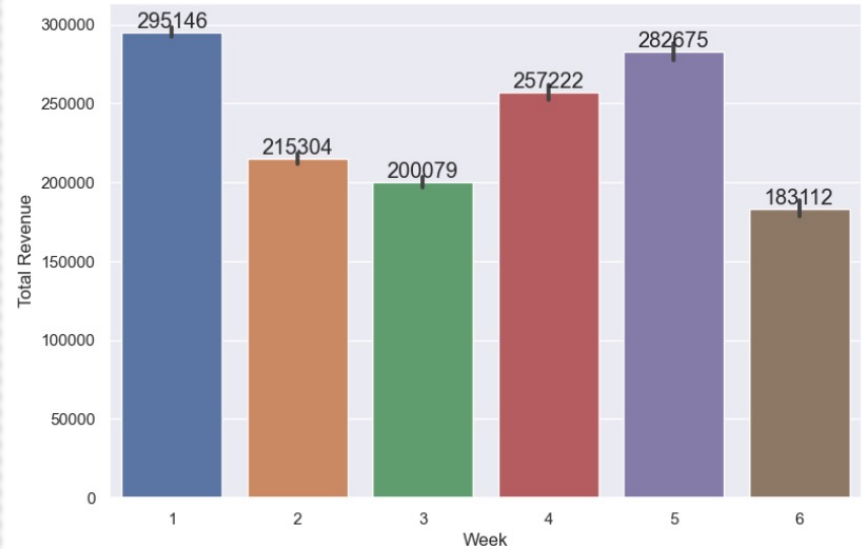
# New Product Analysis (Pg 2 of 5)

## 3. What does the spread of the revenue look like by Week ?

Average Revenue By Week



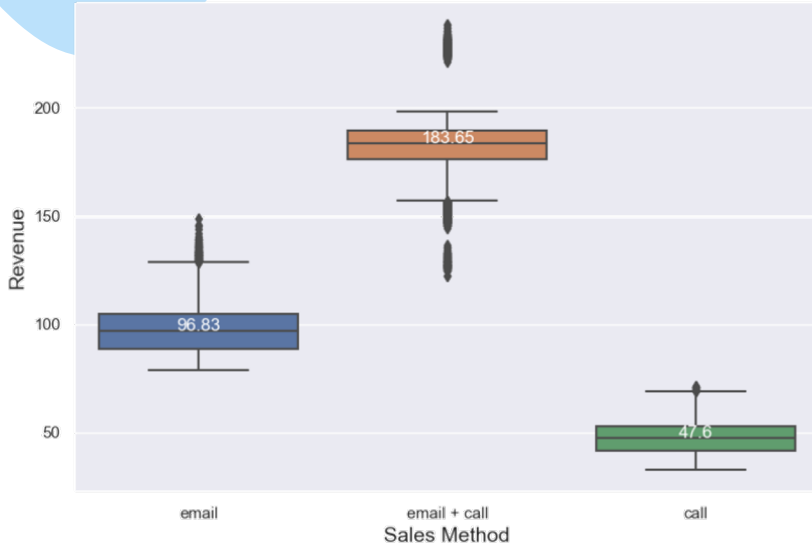
Total Revenue By Week



Revenue increased by average Week on Week but looks so fluctuating in Total. The highest decrement of Total Revenue By Week is on Week 5 to Week 6 (-35%)

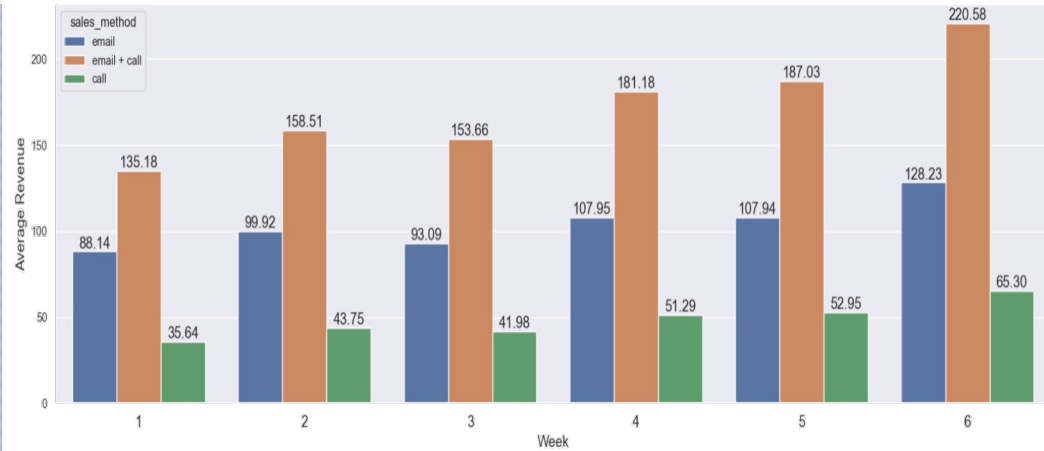
# New Product Analysis (Pg 3 of 5)

4. What does the spread of the revenue look like for each method?



- Email+Call's method has a broader range of revenue outcomes and tends to generate higher revenue.
  - The least profitable one is Call Method.

5. Was there any difference in revenue over time for each of the methods?



Email+call method has higher average revenue compare to other methods within 6 Week.

# New Product Analysis (Pg 4 of 5)

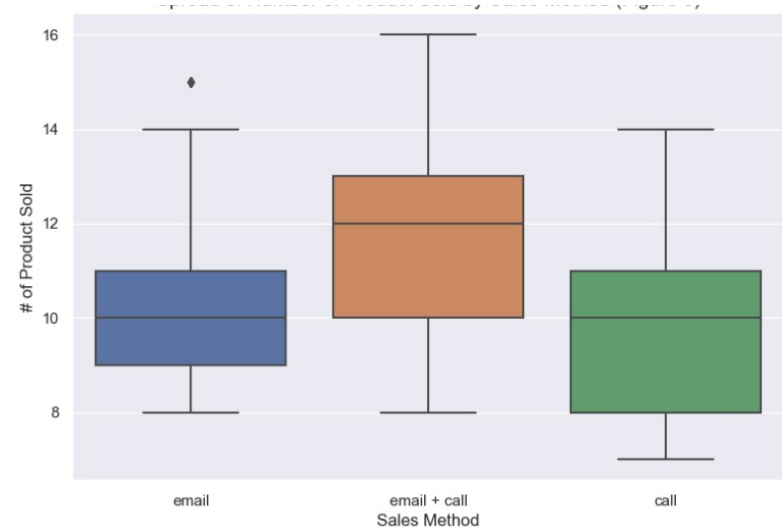
## 6. Was there significant difference in terms of revenue between sales method?

Result Analysis of Variance to determine the significant different in mean of Revenue between Email method vs Email+Call Method:

F-statistic	P-value
228.6265036486301	0.0

Since the result has high f-statistic and low p-value  $< 0.05$  then it's confirmed there's a big revenue gap between those method.

## 7. Was there any specific characteristic of customers within each method?

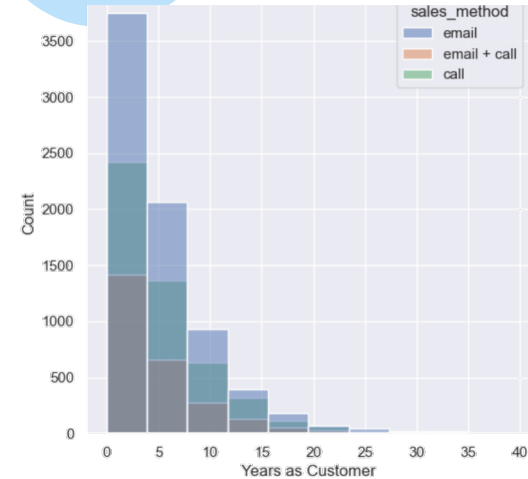


Email+call's customer have higher interest to buy more products since number of products sold for this method was slightly higher compared to the others.

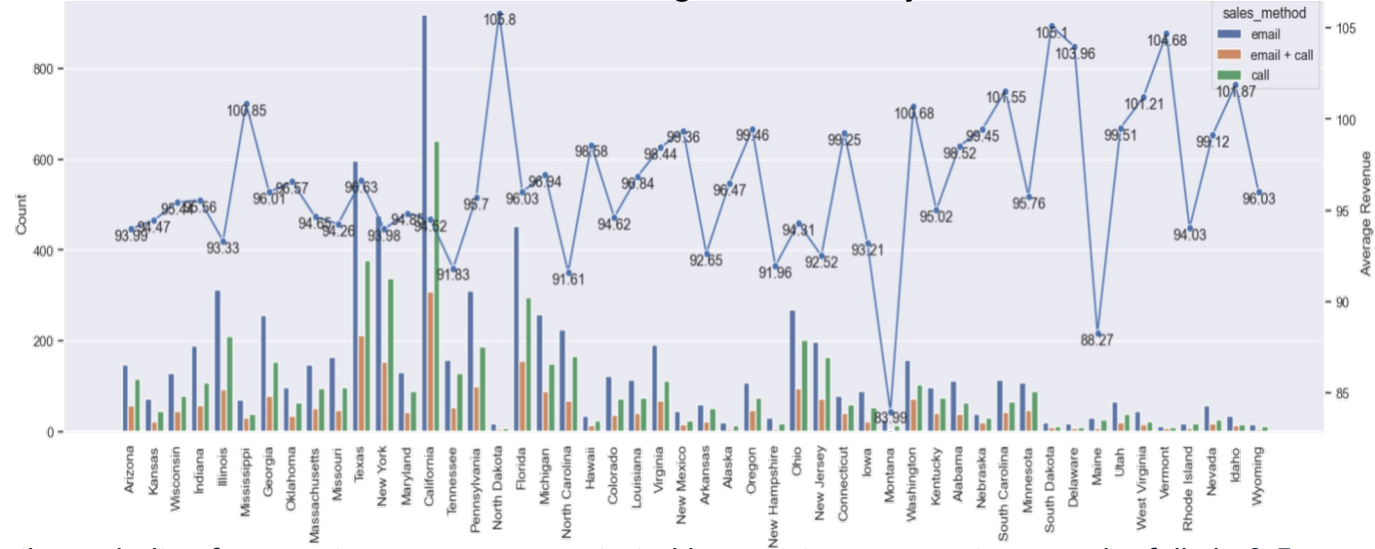
# New Product Analysis (Pg 5 of 5)

## 7. Was there any specific characteristic of customers within each method? (Cont'd)

Years as  
Customer Distribution



# of Customer vs Average Revenue by Location



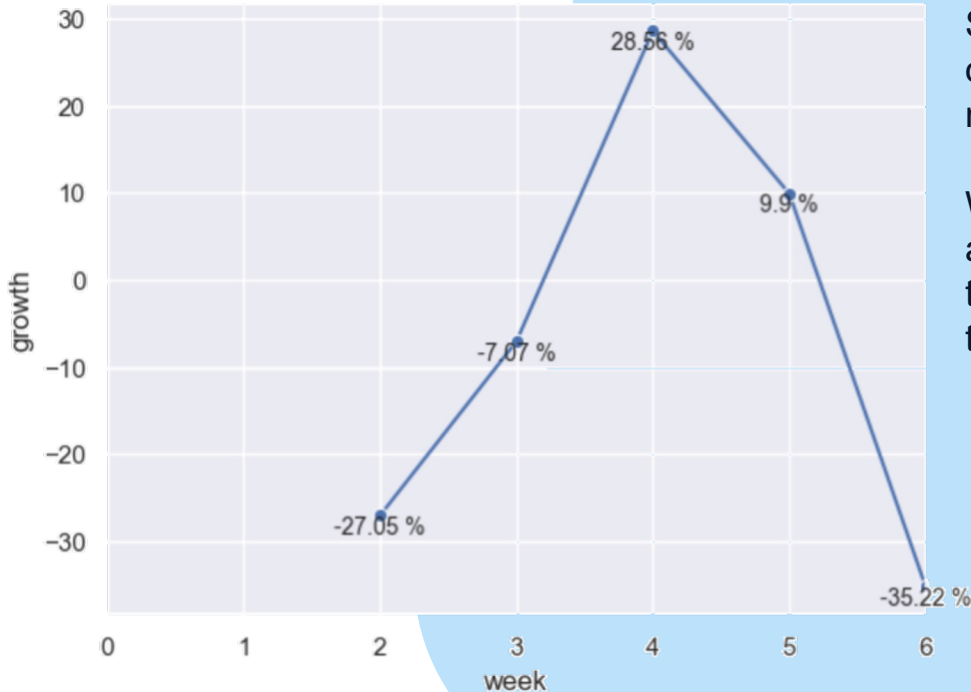
On distribution graph, we can see the majority of our customers are concentrated in recent or new customers who falls in 0-5 years period as customers. Meanwhile based on graph location, we can see as well there's a concentration of customers in California.

We should also consider expanding our market to our customers with more than 5 years of loyalty and also places like North Dakota, South Dakota and Vermont which still have lower number of customers but higher amount of revenue.



# Business Metric

Week on Week Revenue Growth



Since the data is generated on a weekly basis, Week on Week revenue growth is a good indicator for monitoring product growth.

We can see from the next graph, even though there's a consistent increment from 3<sup>rd</sup> week to 5<sup>th</sup> week but the number shows a positive growth. Unfortunately, there's a big decrement in Week 6.

# Recommendation

- Rank of Sales Method from Best to Worst with consideration of revenue generated, number of products sold, number of site visits, and higher potential to gain more customers:
  1. Email + Call - this method gave the highest average revenue, products sold, and site visits, but still the lowest number of customers
  2. Email - this method generated significantly lower average revenue compared to the first method, even though this method has the highest amount of customers
  3. Call - this method is not recommended. This method should be deprecated since this method generated the least revenue compared to other methods.
- Here are some other ways I would like to offer to increase revenue:
  - We can start expanding our marketing strategy towards customers with more than 5 years of loyalty
  - We can try to expand our market to locations with higher revenue but lower number of customers.
- Data Collection for in-depth analysis
  - Improve data dictionary - what is the meaning of revenue? is this a net profit or gross profit?
  - Cost related information for each sales method
  - Time consumed for each sales method
  - Number of all potential customers in various locations
  - Customer's transaction within company for various other products as a potential to cross-sell products.